



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,239	08/22/2003	Stefan Bertil Ohlsson	2002B117/2	9391

23455 7590 05/30/2007  
EXXONMOBIL CHEMICAL COMPANY  
5200 BAYWAY DRIVE  
P.O. BOX 2149  
BAYTOWN, TX 77522-2149

EXAMINER
----------

BRUENJES, CHRISTOPHER P

ART UNIT	PAPER NUMBER
----------	--------------

1772

MAIL DATE	DELIVERY MODE
-----------	---------------

05/30/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/646,239	<b>Applicant(s)</b> OHLSSON, STEFAN BERTIL	
	<b>Examiner</b> Christopher P. Bruenjes	<b>Art Unit</b> 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 56-137 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 56-137 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 30, 2007 has been entered.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 85-86 and 88-89 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation "the one or more tackifiers" renders the claims vague and indefinite, because it is not understood if the

Art Unit: 1772

claims are claiming that the tackifiers of the core layer are also found in the first surface layer in the amounts claimed or if somehow the tackifiers migrate from the core layer to the first surface layer. It appears that these claims in light of the changes to claims 56 and 74, should have been amended to say the "core layer" in place of "the first surface layer".

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 1772

6. Claims 56-137 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lue et al (USPN 6,255,426) in view of Takahashi et al (EP 982 362 A1) and Wong et al (USPN 6,358,457).

Regarding claims 74-80, 87-99, 105-108, 110-111, and 131-137, Lue et al anticipate a multilayer stretch film comprising at least two layers (col.12, l.17). At least one of the layers comprises a polyethylene copolymer having a CDBI of at least 70%, a melt index of from 0.1 to 15 g/10min, a density of from 0.910 to 0.930 g/ml, a melt index ratio of from 35 to 80, and an Mw/Mn ratio of from 2.5 to 5.5, wherein the film has a dart impact strength D, a modulus M, where M is the arithmetic mean of the machine direction and transverse direction 1% secant moduli, and a relation between D in g/mil and M in psi such that D is greater than or equal to  $2.0 \times [100 + e^{(11.71 - 0.000268 \times M + 2.183 \times 10^{-9} \times M^2)}]$ , which is equivalent to the formula claimed (see abstract and col.4, l.48-50 and l.60). The CDBI is at least 85% (col.9, l.43). The melt index is from 0.3 to 10 g/10min (col.4, l.57). The film is wrapped around articles when used as garbage and shopping bags or shrink film (col.10, l.57-59).

Lue et al fail to teach that at least one layer comprises one or more tackifiers. However, Takahashi et al teach that it is well known in the art to add tackifiers or cling additives such as low molecular weight polyisobutylene (PIB) in order to

Art Unit: 1772

provide the packaging film with cling properties (p.34, 1.51-55 and p.40, 1.54-58). Therefore, one of ordinary skill in the art would have recognized that tackifiers such as PIB are added to at least one of the layers of the stretch film in order to provide the packaging film with cling properties, as taught by Takahashi et al.

Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to add a tackifier or cling agent such as PIB to the stretch film of Lue et al, in order to provide the stretch film with cling properties, as taught by Takahashi et al. Furthermore, with regard to claims 88-89, 106-107, and 131-137, the tackifier or cling agents are added to the stretch film in an amount not detrimental to the improved film properties with regard to the stretch and wrap ability of the film, as taught by Takahashi et al on page 34, lines 51-55. Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to add the tackifier or cling agent to the layer within the claimed ranges in order to provide the film with cling properties without damaging the improved film properties, as taught by Takahashi et al. Regarding claims 110-111, the film obviously has a cling within the claimed range when PIB is added to at least one of the layers because the

Art Unit: 1772

range is typical range for cling properties so that the film will properly cling to other objects.

Regarding claims 56-73, 81-86, 100-103, 109, and 112-130, Lue et al in combination with Wong et al and Takahashi teach all of the limitations as shown above with regard to claims 74-80, 87-99, 104-108, 110-111, and 131-137. Takahashi et al also teach that it is well known that packaging films are formed from polyethylene copolymers as monolayer films or multilayer films (p.34, 1.28-30). Takahashi et al also teach other layers are added to polyethylene copolymer films in order to provide additional properties, such as making one surface of the film tacky and the other non-tacky. Takahashi et al teach that in order to provide these properties two additional layers are used, one on either side, of the polyethylene copolymer film (p.34, 1.31-39). One of ordinary skill in the art at the time Applicant's invention was made would have recognized that a layer is added on either side of a polyethylene copolymer film used in packaging in order to give that film one tacky surface and one non-tacky surface, as taught by Takahashi et al.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the film of Lue et al having more than one layer, as a three layered film with the polyethylene copolymer forming

Art Unit: 1772

the intermediate layer, depending on the intended end result of the film, as taught by Takahashi et al.

Lue et al and Takahashi et al combined fail to explicitly teach that the film has a particular natural draw ratio, and tensile stress at separate elongation values. Note the limitation "wherein the film has a natural draw ratio of at least 250%, 275%, or 300%, a tensile stress at the natural draw ratio of at least 22, 24, or 26MPa, and a tensile stress at second yield of at least 12MPa or 14MPa" does not require the film to actually be drawn or stretched, it merely states that the film has these properties. Wong et al teach that the natural stretch ratio is determined by factors such as the polymer composition and morphology caused by the process of forming the film (col.7, 1.4-7). In this case, the film of Lue et al and Takahashi et al has the exact same composition and is made by the same process. Lue et al teach that the film is used as a shrink film (col.10, 1.57), which obviously must be stretched in order to allow the film to shrink.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made, since the film is formed of the same composition and made by the same process, would obviously have a natural draw ratio of the film of at least 300%, a tensile stress at the natural



Art Unit: 1772

draw ratio of at least 26MPa, a tensile stress at the second yield of at least 14MPa, a tensile stress at first yield of at least 9MPa, and the film obviously has a yield plateau with a linear portion having a slope of at least 0.020 MPa per %elongation, as taught by Wong et al.

### ***Response to Arguments***

7. Applicant's arguments filed April 30, 2007 have been fully considered but they are not persuasive.

In response to Applicant's argument that Lue doesn't inherently teach the claimed natural draw ratio, tensile stress at second yield, and tensile stress at the natural draw ratio, the rejection is the combination of the teachings of Lue, Takahashi, and Wong and not an inherent argument over Lue alone. It is also noted that although additives such as the tackifier can effect the overall properties of the film, Applicant's invention teaches as shown by Curve 32 that the claimed copolymer without tackifier, which is taught by Lue, has a natural draw ratio, tensile stress at the natural draw ratio, and tensile stress at second yield that falls within the claimed ranges.

In response to Applicant's argument that the tackifier not substantially changing the properties claimed when added to the

Art Unit: 1772

claimed film was unexpected in light of how EXCEED 1018 is effected when tackifier is added, Takahashi et al teach that the tackifier is added in an amount not to detrimentally effect the properties of the film. Therefore, one of ordinary skill in the art at the time Applicant's invention was made would have realized that tackifier can be added to the film to provide cling without detrimentally effecting the film. Nothing in the prior art cited would lead one of ordinary skill in the art to believe that adding tackifier would detrimentally effect the film. Instead, the only evidence of tackifier effecting the properties of films was developed in Applicant's invention not in the prior art. Applicant's specification makes it clear that the tackifier is not required to make the properties claimed, but instead allow the properties of the film that was taught in Lue to retain those properties even when a tackifier is added because the tackifier does not substantially effect those properties with regard to the inventive film, which is the same as the film taught in Lue, but does effect those properties with regard to EXCEED 1018, which is not used in the prior art cited.

#### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to

Art Unit: 1772

Christopher P. Bruenjes whose telephone number is 571-272-1489.

The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher P Bruenjes

Examiner

Art Unit 1772

CPB

May 25, 2007

